

Part 2

Project-level Evaluation



Overview of Evaluations of Individual Projects in Fiscal 2006

JICA evaluates individual projects using a consistent evaluation system from the ex-ante to ex-post stages. This chapter presents examples of the results of ex-ante, mid-term, terminal, and ex-post evaluations¹. The Reference section of this report lists all individual projects evaluated in fiscal 2006 (259 pro-

jects in total, with 104 ex-ante, 49 mid-term, 81 terminal, and 25 ex-post evaluations). JICA introduced a system to promptly disclose evaluation results on its website in fiscal 2003, and the summaries of evaluation results are available on the website.

Example of Ex-ante Evaluation

I Outline of Project

- Country: Viet Nam
- Project name: Traffic Safety Human Resource Development in Hanoi
- Sector: Transportation
- Cooperation scheme: Technical Cooperation Project
- Division in charge: Viet Nam Office
- Total cost (Japanese side): Approximately ¥389 million
- Period of cooperation: July 2006 to March 2009
- Partner country's implementing agency: Hanoi People's Committee (Transport and Urban Public Works Service (TUPWS), Traffic Police Division (HTPD), Traffic Safety Committee (HTSC)²), People's Police Academy of Ministry of Public Security, and Institute of Training, Enhancing Cadres and State Officials of Transport Sector (INTECSOTS) of Ministry of Transport
- Supporting organization in Japan: National Police Agency

1. Outline of Cooperation

In order to improve traffic safety in Hanoi, the capital of Viet Nam, this project is aimed at improving the capacity of administrative officers in charge of traffic safety in Hanoi by implementing and verifying the traffic safety measures of Hanoi as a pilot project, as well as launching short-term training courses based on the results of the pilot project, from the three standpoints of traffic enforcement³, traffic engineering⁴, and traffic safety education⁵. In view of Viet Nam's unique circumstances where motorcycles are the main means of trans-



Policeman controlling traffic at a model street crossing improved by the project

portation, it is scheduled to implement a comprehensive traffic safety campaign together with improvement of road traffic facilities including an introduction of separate traffic lanes for cars and motorcycles and traffic signals with an arrow sign to separate through traffic and left-turning traffic in the pilot project.

2. Necessity and Positioning of Cooperation

(1) Current Situation and Problems

Since the introduction of the Doi Moi reform policy in 1986, Viet Nam has been rapidly expanding its economy. Moreover, Viet Nam's traffic density has increased annually with a continuous rise in the number of traffic accidents. In 2001, the number of fatalities in traffic accidents exceeded the 10,000 mark across the country, recording a peak in 2002 of 13,000 people killed, of which 96 percent was directly attributed to road traffic accidents.

1. See page 11 for the definition of evaluation at each stage.

2. Hanoi Traffic Safety Committee, chaired by the vice chairman of the Hanoi People's Committee, is composed of representatives from the TUPWS, HTPD, and Education and Training Bureau, which are responsible for examining policies for traffic safety measures and coordinating with related institutions. The secretariat is set up at the TUPWS.

3. In Japan, traffic policemen are charged with the enforcement of traffic control and regulations. In Viet Nam, traffic policemen are in charge of traffic control and enforcement on motor vehicles, and investigation of traffic accidents, while traffic inspectors are in charge of illegally parked and overloaded vehicles. Both are in charge of enforcement of traffic safety.

4. Technologies necessary to design relevant road facilities (roads and crossings), as well as manage and operate road traffic as a whole.

5. Traffic safety education includes education for primary and middle school students, as well as retraining drivers and conducting education campaigns for citizens. This project plans to focus on education campaigns aimed at citizens and drivers.

As the country's capital, Hanoi has been strongly addressing traffic safety measures, resulting in a recent decline in the number of traffic accidents. In contrast, traffic fatalities in the city rose sharply after 1999, peaked at 532 deaths in 2002, and have since remained at about the same level. Given the city's mixed means of transportation, particularly motorcycles, motor vehicles, and bicycles, combined with bad driving habits, Hanoi's traffic situation can be described as simply awful. In view of such situation regarding Hanoi's traffic environment, traffic lights and flyovers have been gradually improved thanks to projects funded by the World Bank and Japan Bank for International Cooperation (JBIC) for improving Hanoi's road infrastructure. However, the city is badly in need of developing the capacity of administrative officers in charge of traffic safety as well as more comprehensive measures in terms of improvement of road traffic facilities, enhancement of safety awareness among road users and citizens living along the roads and more effective traffic control.

In the past, JICA has presented a model for traffic safety improvement by grasping Hanoi's traffic safety situation, and implementing and verifying the model project through its "Basic study on road traffic safety in Hanoi" (fiscal 2003-2004) and "traffic safety strengthening and promotion program" (fiscal 2001, 2003-2004). In view of JICA's performance, the Vietnamese government asked Japan to conduct a project to enhance the capacity of officers in charge of traffic safety in Hanoi.

(2) Positioning within the National Policies of the Government in the Partner Country

The government of Viet Nam views traffic safety as an urgent national issue and began strengthening traffic safety measures in 1997 by setting up the National Traffic Safety Committee (NTSC) within the central government and the Traffic Safety Commission in each province. In 2002, the prime minister's resolution called for a strengthening of comprehensive programs including improvement of the traffic infrastructure, traffic enforcement, and educational campaigns for traffic safety. Especially, a top priority is given to making a reduction of traffic accidents and traffic congestion in Hanoi and Ho Chi Minh City. This project, therefore, is consistent with the policy of the Vietnamese government.

(3) Positioning within Japan's Foreign Aid Policy and JICA Country Program

According to Japan's country assistance program for Viet Nam, the transport sector (deemed an important field for promoting growth and traffic safety) is positioned as the "assistance for transport safety," an overriding priority in the program. Therefore, this project is in accordance with the spirit of the assistance programs.

Since the transport sector in JICA's country program is required to "expand support for traffic safety," this project is in accordance with the purpose of the program.

3. Framework of Cooperation

(1) Objectives of Cooperation (Outcomes)⁶

- Objective to be achieved at the end of cooperation (project purpose)

Traffic safety measures in Hanoi are improved.

[Indicators]

Improvement of traffic safety measures (effective enforcement of traffic regulations and crackdowns by traffic policemen and inspectors, and educational campaigns for traffic safety conducted at regular intervals)

- Objective expected to be achieved after the end of cooperation (overall goal)

The road traffic situation in Hanoi is improved.

[Indicators]

- Reduction in the numbers of traffic accidents, fatalities, and injuries
- Degree of improvement in driving habits of the citizens of Hanoi (survey to monitor traffic violations)

(2) Outputs⁷ and Activities

Output 1: A system for planning, implementation and evaluation of comprehensive traffic safety measures in Hanoi is established.

[Indicators]

- Assignment of the counterparts according to the schedule;
- Formulating and revising Hanoi's traffic safety measures;
- Formulating and revising Hanoi's human resources development plan.

[Activities]

(a) To establish the system for project implementation; (b) To organize traffic safety issues and subjects to be improved in Hanoi; (c) To formulate comprehensive traffic safety measures in Hanoi; (d) To formulate a human resource development program for traffic safety in Hanoi; (e) To revise the above-mentioned measures, based on the evaluation of the pilot projects.

Output 2: The capacity of traffic policemen of HTPD for traffic enforcement (in traffic control and crackdown) is improved.

[Indicators]

- Training curriculums for traffic officers;
- The number of training materials for traffic policemen;
- The number of lecturers trained (40);
- The number of traffic policemen receiving training courses (120);
- Proposing improvement of systems and regulations.

[Activities]

(a) To plan, implement and evaluate the pilot projects⁸ for improving traffic safety; (b) To develop training curriculums on traffic enforcement for policemen; (c) To develop teaching materials for training programs on traffic enforcement for policemen; (d) To train instructors through OJT; (e) To carry out, evaluate and improve seminars and training programs;

Output 3: The capacity of traffic inspectors of TUPWS for traffic enforcement is improved.

6. The concrete indicators and target values will be set up by the baseline survey and measured by the monitoring survey.

7. The indicators and target values other than the numbers of lecturers and trainees will be set up by the baseline survey.

8. The pilot project is carried out as a comprehensive traffic safety campaign including traffic enforcement, traffic engineering, traffic safety education.

[Indicators]

(a) Training curriculums for traffic inspectors; (b) The number of training materials for traffic inspectors; (c) The number of lecturers trained (30); (d) The number of traffic inspectors receiving training courses (90); (e) Proposing improvement of systems and regulations.

[Activities]

(a) To plan, implement and evaluate the pilot projects⁸ for improving traffic safety; (b) To develop training curriculums on traffic enforcement for traffic inspectors; (c) To develop teaching materials for training programs on traffic enforcement; (d) To train instructors through OJT; (e) To carry out, evaluate and improve seminars and training programs; (f) To propose improvements in system and regulations to NTSC.

Output 4: The capacity of officers of TUPWS for road traffic management and engineering is improved.

[Indicators]

(a) Training curriculums for traffic engineers; (b) The number of training materials for traffic engineers; (c) The number of lecturers trained (15); (d) The number of traffic engineers receiving the training courses (90); (e) Proposing improvement of systems and regulations.

[Activities]

(a) To plan, implement and evaluate the pilot projects⁸ for improving traffic safety; (b) To develop training curriculums for the officers of TUPWS on traffic management and engineering; (c) To develop teaching materials for the officers of TUPWS on traffic management and engineering; (d) To train instructors through OJT; (e) To carry out, evaluate and improve seminars and training programs; (f) To propose improvements in system and regulations to HTSC.

Output 5: The capacity of officers of HTSC for traffic safety education and educational activities is improved.

[Indicators]

(a) The number of traffic safety education, case examples of enlightenment activities, and manuals; (b) The number of core officials trained; (c) Improvement proposals for systems and regulations.

[Activities]

(a) To plan, implement and evaluate the pilot projects⁸ for improving traffic safety; (b) To train TUPWS staff in charge of traffic safety education through OJT; (c) To propose improvements for systems and regulations to NTSC; (d) To conduct publicity activities by utilizing such mass media as TV, radio and newspapers.

(3) Inputs

Japanese side

- 1) Dispatch of short-term experts: chief advisor/traffic safety planning, traffic management planning/traffic facility planning, traffic enforcement, traffic safety education, traffic safety public relations, training and pilot project planning
- 2) Acceptance of technical training participants in Japan⁹: 3-5 trainees a year
- 3) Equipment provision: equipment for training, office equipment, etc.

- 4) Project activities costs: expenses for training/seminars, education materials, expenses for improving intersections/roads and organizing public campaigns, etc.

Vietnamese side

- 1) Arrangement of counterparts
- 2) Provision of offices and training rooms, and related expenses such as utility costs
- 3) Necessary budget such as to cover training costs

(4) External Factors (External Conditions to be Met)

- Adequate budgets for implementing traffic safety measures in Hanoi are secured.
- The city of Hanoi continues training by utilizing the training programs developed by this project.
- In conjunction with NTSC, HTSC promotes making proposals for improvement of systems and regulations prepared by this project.
- Counterparts who receive training remain in the same jobs.
- Positive supports from NTSC and related institutions are secured.

II Results of Evaluation

1. Summary of Evaluation Results

(1) Relevance

The relevance of this project is considered to be high for the following reasons:

- This project is consistent with the policies of the Vietnamese government, Japan's country assistance program, and the JICA country program.
- Improving the capacity of administrative officers in charge of traffic regulations and enforcement, traffic engineering, and traffic safety education targeted in this project is an urgent issue to be solved for Viet Nam (which lacks experience in addressing traffic safety) and consistent with the country's needs. For traffic policemen, inspectors, and traffic engineers in particular, training programs that meet their needs are provided.

(2) Effectiveness

This project is expected to be effective due to the following reasons:

- In traffic safety, comprehensive measures that combine traffic enforcement, traffic engineering, and traffic safety education are indispensable, instead of taking measures individually. This project provides support in line with the needs of each area and enhances the capacity to more effective traffic safety measures by implementing comprehensive traffic safety measures with coordination of each related authority through the implementation of the pilot project.
- During the period of cooperation, this project is expected to train 160 traffic policemen (about 20 percent of all policemen) and 120 traffic inspectors (about 40 percent), in order to develop human resources. The trainees are selected in a fair manner from traffic policemen in each district under

8. The pilot project is carried out as a comprehensive traffic safety campaign including traffic enforcement, traffic engineering, traffic safety education.

9. Counterparts who manage the project or become lecturers will be given an opportunity to learn about actual examples of Japan so they can study traffic safety measures that will serve as good models in Viet Nam.

jurisdiction, thereby producing key personnel for each team. With regard to traffic engineering, the project will train 105 officers, and is expected to develop human resources in various organizations such as TUPWS (about 30 officers) and organizations concerned under TUPWS. As described above, the project is considered to foster the necessary number of officers during the period of cooperation.

(3) Efficiency

This project is expected to be implemented efficiently for the following reasons:

- The training materials used in the training courses will be created as modules based on the contents of training so that they can be shared as much as possible among traffic policemen, traffic inspectors, and traffic engineers. This project can also use well-experienced lecturers and existing teaching materials in the cooperation with the People's Police Academy of the Ministry of Public Security and INTEC-SOTS, and it is considered to make the effective development of human resources possible.

(4) Impact

The anticipated impact of this project is as follows:

- In order to enhance the capacity of the city of Hanoi to formulate, implement, and evaluate traffic safety measures, the city of Hanoi must continue conducting training activities for these officers even after project termination. Fostering core lecturers and improving the manuals for lecturers will help facilitate continuous implementation, and contribute indirectly to achieve the overall goal.

(5) Sustainability

Sustainability can be anticipated for the following reasons:

- Since this project trains administrative officers in charge of traffic safety in Hanoi as lecturers, it is possible to secure the personnel necessary for continuing the training programs after the cooperation ends. Moreover, the system to conduct self-sustained training by preparing manuals to train lecturers will be established.
- Regarding training programs of this project, officers and facilities of the city of Hanoi will be utilized as training lecturers and training rooms. Since the training is conducted as a part of their daily routine, there will be no significant cost burden to continue the training. Additionally, the TUPWS has secured a budget for training expenses every year and is expected to secure it after the end of the project. HTPD has also confirmed a budget. Thus, there will be no financial difficulties in continuing the training programs.
- In Hanoi, the Vietnamese government has been pushing ahead with traffic safety programs in cooperation with the donors. So the outcome of this project is likely to be integrated into those programs for further development. Consequently, policy support for the planning, implementation, and evaluation of traffic safety measures in Hanoi can be expected after the end of the project.

2. Consideration for Poverty, Gender, Environment, etc.

Due consideration must be given to protection of the vulnerable members of a motorized society, such as the elderly and children, when providing traffic safety education and engaging in traffic safety campaigns. Moreover, gender balance must be considered as much as possible in the selection of training lecturers.

3. Lessons Learned from Past Experience

“Strengthening and promotion program for traffic safety” in Viet Nam

Since traffic safety involves various stakeholders and needs their cooperation, it is necessary to manage the project by paying heed to the consensual process among the stakeholders. Considering this lesson, the organizations concerned are assigned as members of a joint coordination committee and project management committee so that a consensual process among the organizations concerned is taken in project implementation.

4. Future Evaluation Plan

A mid-term evaluation is scheduled to be implemented one year after the launch of cooperation, a terminal evaluation six months before the end of cooperation, and an ex-post evaluation three years after the end of cooperation.

Example of Mid-term Evaluation

I Outline of Project

- Country: El Salvador
- Project name: Enhancement of Technology for the Construction of Popular Earthquake Resistant Housing
- Sector: Disaster Prevention
- Cooperation scheme: Technical Cooperation Project
- Division in charge: Global Environment Department
- Period of cooperation: December 2003 to November 2008
- Partner country's implementing agency: The Housing and Urban Development Agency of the Ministry of Public Works, Central America University, the University of El Salvador, El Salvador Popular Housing Development Foundation
- Supporting organization in Japan: Building Research Institute

1. Background of Cooperation

A series of earthquakes that struck El Salvador in January and February 2001 caused extensive damage to the country, including large-scale landslides in hilly areas, and the destruction of and damage to buildings and houses. Sixty percent of the damaged houses used to be occupied by poor people whose incomes were less than double of the minimum wages.

In March 2001, the JICA Mexico office and the "Project for the Reinforcement of Mexican Ministry of Foreign Affairs and the Development of South-South Cooperation" co-hosted the workshop in San Salvador to formulate South-South cooperation projects jointly implemented by Japan and Mexico. Earthquake and disaster prevention experts from El Salvador and Mexico attended the seminar and workshop to discuss the problems.

To that end, the government of El Salvador requested Japan, which enjoys a high reputation for cooperation in this field, to implement a technical cooperation project aimed at 1) verifying the earthquake resistance of popular houses for low-income people, 2) enhancing earthquake-resistant building technology, and 3) disseminating the technology. The project has been implemented for five years since December 2003 with cooperation from Mexico within the framework of South-South cooperation.

2. Framework of Cooperation

(1) Overall Goal

Earthquake damage suffered by low-income people is reduced.

(2) Project Purpose

The earthquake resistance of popular houses for low-income people is upgraded.

(3) Outputs

Output 1: The earthquake resistance experimental facilities



Construction technology trainees constructing an earthquake-resistant popular model house

for popular houses and the experiment implementing the system are improved.

Output 2: The researchers and engineers of the implementing agencies acquire earthquake resistance technology, and the capacity of demonstrators are improved.

Output 3: Earthquake-resistant popular model houses are built.

Output 4: The dissemination system of earthquake-resistant popular model houses is established.

Output 5: The earthquake-resistant popular houses are promoted among low-income people.

(4) Inputs (at the time of evaluation)

Japanese side

- 1) Dispatch of short-term experts: 17 experts (4 Japanese and 13 Mexican)
- 2) Trainees received: 17 people (4 in Japan and 13 in Mexico)
- 3) Equipment provision
- 4) Local costs

Salvadoran side

- 1) Assignment of counterparts
- 2) Facility provision

II Evaluation Team

Team leader:

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Cooperation planning:

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Interpreter:

Shingo Maeyama, Japan International Cooperation Center

Period of evaluation: November 4 to 20, 2006

Evaluation viewpoints:

- In view of achievements and implementation process of the project, to what extent has the project achieved its outputs and project purpose?
- What are the contributing and inhibiting factors that have affected project implementation?

- What are the problems and issues to be solved for activities in the second half of the project?

III Results of Evaluation

1. Achievement Level

(1) Project Outputs

Output 1: Output 1 was almost achieved. The equipment for earthquake resistance experiments were properly installed, managed, and fully utilized. The operators for equipment are also assigned. The operating manual was revised and now formally available.

Output 2: Output 2 is now being achieved. About 20 persons are now being trained to acquire earthquake resistance technology, and expected to reach a level where they can conduct experiments by themselves by the end of the project. Regarding dissemination, five trainees participated in the training conducted in Mexico. Furthermore, a total of 30 trainees, including the five noted above, are receiving training in El Salvador.

Output 3: Among the four construction methods, earthquake resistance experiments for the block panel construction method have been completed and a popular model house has been built. With regard to the adobe construction method, 60 percent of the experiments is completed. The experiments on the soil cement method has just got off to a start.

In the second half, it is expected that earthquake resistance experiments will be conducted more efficiently. The work schedule is now set more efficient by conducting experiments on each method at the same time. Based on these facts, it is expected that popular houses will be built using the other three construction methods during the remaining period.

Output 4: Steady progress has been made, and this output is expected to be achieved by the end of the project. To date, two model houses have been built using the block panel method. There are two kinds of manuals for dissemination: one for engineers and the other for residents. A video showing the construction processes is now being produced. Twenty construction workers were selected from local people under a set of conditions to form a citizen-level dissemination group. They are receiving technical training to provide many local people with the know-how for building popular houses as demonstrators. A dissemination group consisting of researchers, engineers, and demonstrators was also organized, and members are receiving technical guidance for the dissemination of popular houses in order to improve their capacity.

Output 5: This output would be achieved by the end of this project. To promote the construction of earthquake-resistant popular houses, the Housing and Urban Development Agency plans to formulate a “pilot program for dissemination of earthquake-resistant houses” under this project in the future. As for 600 popular houses to be built under the budget of this fiscal year with the support of the Inter-American Development Bank (IDB), at least 300 houses

will be built using the block panel construction method developed by the project. This was realized by an initiative made by the Vice Minister of the Housing and Urban Development Agency during the mid-term evaluation, and will substantially contribute to the realization of “Pilot program for dissemination of earthquake-resistant houses.”

(2) Project Purpose

The project purpose is expected to be achieved by the end of the project.

About 60 people including residents and engineers participated in the on-site training on model houses using the block panel construction method. Although it is in the middle of the cooperation period, the number of participants failed to reach the target of 400. But it is expected that the original target can be achieved because 1) they will be able to overcome their initial difficulties experienced in the first construction method and accelerate their pace of progress in the second half of the project and 2) the counterparts are maintaining their high spirit in executing the project. Some 50 earthquake-resistant popular houses, including two model houses built with each construction method developed by this project, are to be built with the support of a German NGO. Furthermore, a positive situation of counterparts has been observed according to interviews with them, revealing their awareness of the possibility of becoming members of the popular houses committee, which should be established before project termination to decide and improve the policy on laboratory management and operation.

(3) Confirmation of Implementation Process

- To use time and the workshop more effectively and efficiently, such efforts as conducting the experiments on each construction method in parallel were made. The work schedule was changed according to the actual situation to achieve the project purpose.
- It is not easy for counterparts to strike a balance between their original jobs and responsibilities in this project as they are assigned to this project not on a full-time basis and have other responsibilities.
- Information about the activities of other research groups is not shared enough. However, promoting exchanges among research groups for each construction method will be indicated in the operation manual of the model houses, and a measure to encourage such exchanges has now gotten off the ground.
- The four institutions of government, NGO, private and national universities are now organically collaborating from their own point of views.

2. Summary of Evaluation Results

(1) Relevance

This project is most relevant because (1) disaster prevention is given higher priority as it is one of the five initiatives agreed upon in the policy dialogue between El Salvador and Japan in July 2006, (2) there are significant needs to upgrade the earthquake resistance of houses occupied by low-income people positioned as the target group in El Salvador, an earthquake-prone country, and (3) the project is consistent with

Japan's ODA policy as one of the strategic areas of Japan's assistance to El Salvador is "strengthening of disaster prevention systems."

(2) Effectiveness

At the time of mid-term evaluation, the project purpose is expected to be achieved by the end of the project, with all five outputs contributing to achieving the project purpose. Thus, it can be said that the effectiveness is high.

(3) Efficiency

The project is highly efficient. The inputs by both Japan and El Salvador were necessary and sufficient to produce the expected outputs. South-South cooperation with a neighboring country where the same language is spoken had beneficial effects, as in the case of training in Mexico and the dispatch of Mexican experts.

(4) Impact

The project's impact is expected to be significant. With regard to the national program on construction of houses for low-income people supported by IDB, for example, at least 300 houses are going to be built under this fiscal year's budget using the block panel construction method developed by the project. This fact indicates the high possibility of accomplishing the overall goal. Furthermore, earthquake-resistant houses would be disseminated if the government introduces approval and certification systems by revising the building standard law and formulating new building laws.

No negative impact was observed.

(5) Sustainability

It is expected that sustainability will be secured, assuming that the specific conditions noted below are met.

Organizational sustainability

Since each of the four counterpart institutions is stable with excellent actual performance, organizational sustainability is high.

Financial sustainability

Meeting the following points will enhance financial sustainability.

- If the government introduces approval and certification systems by revising the building standard law and formulating new building laws, it will accelerate the dissemination of earthquake-resistant houses at the cost of house builders.
- Expenses for maintaining and utilizing experimental facilities at universities can be borne by offering services of issuing certificates to housing companies whose houses are proven to be earthquake-resistant in laboratories, in line with the revision of law noted above.
- Strong cooperation with local authorities is necessary to continue training in the future.
- The project makes efforts to help residents, who plan to build houses with the construction methods of the project, utilizing existing financial support.

Technical sustainability

At the researcher level, personnel trained by this project as specialists holding a master's or doctoral degree will foster new specialists at universities. As a way to stabilize technology among residents, they are to be monitored after technical

training, and those who received training are expected to become demonstrators. As it now stands, however, the monitoring is carried out only when residents who received the training request such monitoring. Thus, there should be room for future reconsideration for the sake of a steady monitoring system.

3. Contributing and Inhibiting Factors

Contributing factors are: 1) Mexican and Japanese experts dispatched to El Salvador, enhancing the country's capacity in a field where El Salvador did not previously possess, 2) establishment of an academic network in the field, and 3) close coordination between four different institutions. No factors hampering this project were identified.

4. Conclusion

The outputs of the project have been steadily attained, allowing the project to achieve its project purpose. Despite the delay in some activities at the beginning, more efficient approaches were taken by adjusting the schedule for the current status, allowing the project to attain its project purpose by the end of the project. In terms of the five evaluation criteria, the relevance of the project is extremely high at the time of mid-term evaluation. The effectiveness is also high. The efficiency of the project is also highly evaluated, and its impact is considered significant. The project's sustainability is also expected to be secured at this time if specific conditions are met.

5. Recommendations

In order to achieve the project purpose, it was recommended that the following actions should be taken in the second half of the project.

- Encourage universities to strengthen their existing social activity system in order to reduce the burden on counterparts who work for the project, and promote the development of human resources.
- Consider differences in the preparation periods for experiments and the time required for each construction method, and adjust activity plans and activities shown on PDM in line with the actual situation. These changes must be confirmed among all the parties concerned.
- Clarify the indicators shown on the existing PDM.
- Have deep discussions regarding the indicators of the overall goal among all the parties concerned, and revise those indicators if necessary.
- Make efforts to further deepen exchanges among the research groups on each construction method for the sharing of information.
- Set up an environment in order to exchange candid opinions at the joint coordination committee.
- Pay attention to the legislation system concerning building standards and the status of national programs, and make efforts to promote their realization.
- Encourage the private sector and NGOs involved in popular house construction to participate in meetings and activities on dissemination of housing construction.
- Conduct more PR activities.

Example of Terminal Evaluation

I Outline of Project

- Country: China
- Project name: Human Resource Development of Rehabilitation Professionals
- Sector: Social welfare
- Cooperation scheme: Technical Cooperation Project
- Division in charge: Human Development Department
- Total cost: ¥700 million
- Period of cooperation: November 2001 to October 2006
- Partner country's implementing agency: China Disabled Persons' Federation, China Rehabilitation Research Center
- Supporting organizations in Japan: International University of Health and Welfare, National Rehabilitation Center for Persons with Disabilities, Japanese Physical Therapy Association, Japanese Association of Occupational Therapists
- Related cooperation: Improvement of Equipment for the China Rehabilitation Research Center for Physically Disabled (grant aid), Project on Rehabilitation for Physically Disabled in China (project-type technical cooperation)

1. Background of Cooperation

Given rapid economic development, expanding industrial facilities, and increased volume of traffic, occupational and traffic accidents have dramatically increased in China. It is said that the number of persons with disabilities reaches 60 million. Under these circumstances, the Ministry of Health established a "rule for managing rehabilitation therapy at general hospitals," making it mandatory for large general hospitals to establish rehabilitation departments and assign physical/occupational therapists. There is an acute shortage of personnel engaged in rehabilitation, however, and China must urgently develop human resources and lecturers responsible for fostering such personnel.

The China Rehabilitation Research Center (hereinafter referred to as "the Center") was established in the late 1980s by the China Welfare Fund for the Handicapped (predecessor of the China Disabled Persons' Federation) in cooperation with the Japanese government as a comprehensive institute responsible for clinical study, research, and education in the field of rehabilitation, and later became a base for fostering personnel engaged in rehabilitation services. Although the Center has been providing professional training for personnel engaged in rehabilitation services nationwide, its quality and quantity of education have proven inadequate to satisfy the demand for rehabilitation services in China.

Consequently, the Center and China Disabled Persons' Federation requested the Japanese government in 1997 to undertake this project for a training institute newly established



Physical therapists (PT) receiving a technical training from a Japanese expert

at the Center. In response to its request, a five-year technical cooperation project was launched in November 2001.

2. Framework of Cooperation

(1) Overall Goal

Physical therapists (PT) and occupational therapists (OT) are able to provide rehabilitation services throughout China.

(2) Project Purpose

Highly qualified physical and occupational therapists are trained under a four-year education program that meets the global standard.

(3) Outputs

Output 1: A four-year education curriculum for physical and occupational therapists that meets international standards is prepared.

Output 2: Competent teachers in rehabilitation medicine are trained.

Output 3: The educational techniques of teachers are enhanced.

Output 4: The level of education management is enhanced.

Output 5: Educational materials and equipment are improved.

Output 6: A four-year education program is provided.

(4) Inputs (including those expected by the end of the project)

Japanese side

Dispatch of chief advisors: 14 advisors (cumulative)

Dispatch of long-term experts: 2 experts

Dispatch of short-term experts: 23 experts (cumulative)

Trainees received: 15 people

Equipment

Local costs

Chinese side

Assignment of personnel: 121 instructors, 26 education management staff

Land and facility

Operation expenses

Management and labor costs

II Evaluation Team

Team leader:

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Rehabilitation:

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Human resource development:

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Evaluation planning:

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Evaluation analysis:

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Interpreter:

Wang Hong

Period of evaluation: May 14-27, 2006

Evaluation viewpoints:

- To what extent are the project purpose and outputs achieved? What are the implementing processes and the causal relationship leading to achievement?
- What measures must be taken during the remaining active period and after the end of the cooperation?

III Results of Evaluation

1. Achievement Level

(1) Achievement of Outputs

Output 1: The four-year education curriculum was developed based on curriculums applied in many countries including Japan and internationally recognized standards.

Output 2: Prior to the cooperation, the number of professionals with master's degrees who are qualified to teach physical and occupational therapy at universities was limited. However, thanks to the project, a total of 15 teachers including physical and occupational therapists will be trained.

Output 3: The effective use of audio-visual aids has become popular. However, clinical training not introduced before is still conducted with the help of Japanese experts in various situations, and needs further improvement. As the method and know-how of clinical training were not yet stabilized in China, it is considered that continued guidance by Japanese experts is necessary.

Output 4: Classes were managed based on the curriculum and syllabus in general, though not in all cases. Since further improvement is needed for enhancing the quality of education through proper evaluation of the teachers, continuous cooperation is necessary in some areas.

Output 5: Nineteen textbooks specialized in physical and occupational therapy were published for the first time in China. Necessary materials and educational equipment were developed sufficiently. However, duplicate and inadequate descriptions are found in the textbooks after being used, and need to be revised at a proper time.

Output 6: In July 2006, 38 students of the first batch will graduate and find careers after graduation. Since the number of applicants exceeds the quota of students, the four-year education program is expected to continue in the future with about 40 students graduating every year.

(2) Achievement of Project Purpose

This project, in collaboration with the Capital Medical University in China, is aimed at establishing a four-year curriculum on physical and occupational therapy that meets international standards, with the number of graduates and quality of teachers being set up as indicators for the project purpose. No students had graduated at the time of the evaluation. However, 38 students of the first batch are expected to graduate in the summer of 2006. The four-year education program should continue without interruption as no financial problems have been observed. With respect to the quality of education, however, there are some aspects that require further cooperation.

2. Summary of Evaluation Results

(1) Relevance

The Chinese government adopted a basic policy to “provide rehabilitation services for every person with disabilities by 2015” in its strategic plan that was formulated in 2002. Conversely, China has a shortage of rehabilitation specialists as well as a shortage in the number of quality of teachers qualified to develop human resources in rehabilitation. The need is considered very high as this project is aimed at supporting the training of teachers. After the launch of this project, Japan conducted a review of the ODA Charter and mid-term policy of ODA, and took the stance of placing importance on “human security.” This project, aimed at human resources development to support the socially vulnerable, is consistent with the concept of “human security.” Furthermore, the “Economic Cooperation Program for China” (2001) formulated by the Ministry of Foreign Affairs of Japan prescribes support for the socially vulnerable and the development of human resources. This project contributes to the rehabilitation of socially vulnerable people, including those with disabilities and the elderly, and is consistent with the direction of the trend above.

(2) Effectiveness

The effectiveness of this project can be considered high. As 38 students who received education based on the curriculum meeting international standards are expected to graduate in the summer of 2006 with other graduates to follow in the future, the project purpose is considered achieved. However, it is pointed out that the contents of the curriculum as well as the quality and number of teachers must be further strengthened. The outputs obtained from the project activities effectively contribute to achieving the project purpose.

(3) Efficiency

All the inputs by the Japanese and Chinese sides were put to practical use for project activities, contributing to the production of outputs. The outputs are generally produced in accordance with the plan, with project efficiency secured.

With regard to the quantity, quality, and timing of inputs, the mid-term evaluation pointed out a few problems, such as the delay in equipment delivery and reassignment of chief advisors every few months due to the limited dispatch period of Japanese experts. In the second half of the project, however, no major problems have been observed since some measures were taken such as a smooth takeover among Japanese experts and repetition of experts dispatched.

(4) Impact

The China Disabled Persons' Federation is enthusiastic about attaining the overall goal, and is now promoting facilities improvement and human resources development in the country. As students graduate every year, the development of human resources is expected to accelerate under this project, and thus contribute to achieving the overall goal of this project. However, a smooth development of human resources and the realization of assigning rehabilitation personnel to local regions could become major issues. Furthermore, since collaboration is indispensable between rehabilitation facilities under the Ministry of Civil Affairs and the Ministry of Health in terms of disseminating rehabilitation, it is necessary to coordinate with these institutions.

Moreover, some ripple effects have been observed. The Chinese government is going to introduce a national license for rehabilitation therapists, and some universities and colleges refer to the curriculum developed by this project and utilize the materials when establishing or enhancing the rehabilitation courses. Incidentally, no negative impact is expected.

(5) Sustainability

Sustainability is considered very high. The Chinese side, however, must make efforts continuously to review teaching materials, improve the capabilities of teachers, and strengthen education management as an educational institution.

Policy aspect: The Chinese government has secured the site for expanding the Rehabilitation Medical School attached to the Center. The government has also initiated preparatory work for introducing a national license for rehabilitation therapists.

Organizational aspect: The Center has a history of almost 20 years as an operational unit of the China Disabled Persons' Federation (established in 1988), and is considered to have sufficient organizational capacity as China's largest modern therapeutic research institution for rehabilitation of the disabled. It is also playing a central role in fostering rehabilitation personnel in order to spread rehabilitation medical technology throughout China. However, the Center has limited experience as a higher educational institute, and needs to improve its education management capabilities. Its syllabuses, practical training plans, and assignment of teachers must be improved continuously for the time being.

Financial aspect: The Center continues to provide patients with rehabilitation treatment (clinical practice) and earn profits. In comparing its revenues and expenses for this project, the Center's revenues exceed expenses. Thus, the Center's financial sustainability is considered secure. The

Chinese side has made efforts to secure a budget for expenses during the project period. No major problems have been observed with supplies for equipment and the travel (lodging) expenses of counterparts.

Technical aspect: As the counterparts have acquired knowledge and technology thanks to this project, sustainability of the technical aspect is secure. Individual teachers must make further efforts, however, to enhance their knowledge and techniques. Teaching materials including textbooks must also be revised for further improvement periodically. Equipment is appropriately managed with no problems.

3. Contributing Factors

- Although approval for the four-year curriculum to foster rehabilitation experts was not obtained before the implementation of the project, the Ministry of Education permitted the Rehabilitation Medical School at the Capital Medical University to establish a curriculum in February 2002. Since permission was granted early, the school was able to recruit students beginning in September 2002.
- Although not directly related to this project, when Japanese students gave clinical lessons at the center, teachers at the Rehabilitation Medical School who could experience a real example of clinical education became quite active about having case report meetings by students and implementing graduation study.

4. Inhibiting Factors

In spring of 2003, the Severe Acute Respiratory Syndrome (SARS) incident disrupted activities for two and a half months. This disruption occurred at a crucial time when the first batch of counterparts training in Japan came back to China and were about to get involved in the activities, and consequently delayed the progress of the project. Thanks to efforts by the persons concerned, the project made up for lost time after the disruption. As a result, most parts of the project have progressed.

5. Conclusion

This project brought positive results in establishing a four-year education program to foster rehabilitation specialists, which will foster about 40 specialists every year in the future. The main factor behind the success of the project is the good selection of strategy, as well as the fact that inputs and activities were properly carried out according to plan. Through the project, the foundation was laid for a four-year college that fosters human resources who will play an important role in achieving the overall goal. From the viewpoint of the five evaluation criteria, the project can be considered an excellent one. Even though a four-year college was established and the project achieved its project purpose, further improvement is necessary. The quality and quantity of teachers cannot be considered satisfactory, and educational management must be strengthened. It is hoped that further efforts will be made in achieving the project's overall goal by considering ways to spread the fruits of the project throughout the country.

6. Recommendations

In order to make achievement of the project purpose more secure and attain the project's overall goal, it is necessary to address the following issues:

- Obtain certification of international standards for the curriculum for occupational therapists.
- Although advance preparations for lectures and practical training are necessary for providing appropriate education, all counterparts are concurrently involved in clinical practice and educational management. Therefore, it is necessary to provide them with enough time to make advance preparations by adjusting time for clinical practice.
- Prepare to make revisions on duplicate and insufficient contents that were revealed after actual use of the teaching materials.
- Clinical training in China requires assistance and guidance from Japanese experts due to a general lack of experience there, but it must be implemented independently in the future.
- Establish an evaluation system for improving the quality of teachers.

- Further improve the quality and quantity of teachers, and strengthen educational management. Furthermore, it is necessary to spread the outputs of this project throughout the country.

7. Lessons Learned

- When planning a project to establish a university or department in the university, the educational system and educational management must be reviewed.
- Under this project, one-year training was conducted in Japan for the counterparts with the purpose of fostering teachers. It was found that the counterparts must obtain a master's degree during their training in Japan, since Chinese university teachers are required to hold at least a master's degree. To complete a master's program in one year was a considerable burden, and the training concerning educational management necessary for teachers was unsatisfactory. When taking these facts into account for conducting training in Japan, it is vital to set clear-cut targets with consideration of training period and also both Japanese and Chinese sides should share the same view.

Example of Project-level Ex-post Evaluation

I Outline of Project

- Country: Thailand
- Project name: Pasture Seed Production Development Project in Northeast Thailand
- Sector: Agriculture
- Cooperation scheme: Technical Cooperation Project
- Division in charge: Rural Development Department
- Total cost: ¥397 million
- Partner country's related organization: Animal Nutrition Division (AND), Department of Livestock Development (DLD), Ministry of Agriculture and Cooperatives (MOAC)
- Period of cooperation: August 1999 to August 2004
- Supporting organization in Japan: Ministry of Agriculture, Forestry and Fisheries

1. Background of Cooperation

In the 9th National Socio-economic Development Plan (2002-2006), the Thai government set up the Livestock Promotion Plan in order to promote livestock products to meet the domestic and international demand for agricultural products.

In the Livestock Promotion Plan, the Thai government identified the importance of increasing high quality forage production in order to respond to the growing cattle population as well as to reduce production costs of livestock products.

The Thai government built a basic system for the purpose of supporting forage seed production for developing the livestock industry. This system allocated a quota to seed production farmers for purchasing seeds and the provision of seeds at free of charge to dairy farmers who began rearing cattle and cooperating with the government's project. Especially in the



Pasture seed production survey

Khon Kaen area of northeast Thailand, the seed production farmers who produce 97% of the total forage seed production in Thailand are supported by the government. The seed production farmers were eager to produce forage seeds because of its high profitability compared with rice production.

However, there were several problems facing forage seed production: 1) appropriate seed varieties are not developed in Thailand, 2) cultivation management, 3) inspection and the system for maintaining the quality of seed technique were not well developed, and the seeds market is limited.

In order to resolve such problems, the Thai government requested the Japanese government for technical cooperation to promote livestock development by improving forage production and utilization techniques.

2. Framework of Cooperation

(1) Overall Goal

Appropriate forage is secured for the development of cattle rising in Thailand.

(2) Project Purpose

The techniques on production, processing, and utilization of pasture seed and appropriate forage are developed for small-scale livestock and pasture seed farmers in northeast Thailand.

(3) Outputs

Output 1: Techniques on evaluation and selection of appropriate varieties of pasture are developed.

Output 2: Techniques on pasture seed production and post-harvest processing for registered and commercial seeds are developed.

Output 3: Techniques on pasture seed inspection and quality control are developed.

Output 4: Techniques on production, processing, and utilization of appropriate forage are developed.

(4) Inputs (at project termination)

Japanese side

Dispatch of long-term experts: 7 experts

Dispatch of short-term experts: 16 experts

Trainees received: 13 people

Equipment provision

Local costs

Thai side

Counterpart assignment: 20 people

Local costs

II Evaluation Team

Evaluators

Minoru Fujii	RECS International Inc.
Thanyatorn Singrueng	Kokusai Kogyo (Thailand) Co., Ltd.
Sucheewan Yoyrurob	Kokusai Kogyo (Thailand) Co., Ltd.

Period of evaluation: October 1, 2006 to January 25, 2007

Evaluation viewpoints

- What effects have the project's impacts and sustainability had two years after the end of the technical cooperation?
- What measures must be taken to implement more efficient and effective activities?

III Results of Evaluation

1. Summary of Evaluation Results

(1) Impact

Achievement of overall goal: Because new pasture seed varieties take at least three years to evaluate, the results could not be confirmed. It is essentially desirable to evaluate these varieties from the viewpoints of local adaptability and specific characteristics, three years after their breeding development. However, the pasture seeds introduced by the project took a firm hold on the local situation in Thailand from 2004 to 2007. Besides, according to statistical data from 2004 to 2006, the crop of animal food production as Thailand's supply sufficiently exceeded expectations of Thailand's demand planned by the AND program. Therefore, the achievement of the overall goal has continu-

ously been realized since project termination because the supply obviously fulfilled the demand in Thailand.

Technical impact: Most AND personnel who joined JICA Project are working for the Paddy pasture project ("Paddy project") implemented under the AND initiative. As a result, the techniques and knowledge of the project are widely utilized. Moreover, resulting from the fact that the manuals/guidelines were produced not only in English but also in Thai, they have widely been utilized not only by AND personnel with a command of English but also by other AND personnel and seed production farmers.

Economic and financial impact: As a whole, the supply of AND's crop product exceeds demand. Under this circumstance, AND regulated crop production through the Seed Production Farmers' Club (Seed Club),¹⁰ which reserved pasture seed as stock, and eventually sold these reserves to other countries.

Environment and social impact: At the terminal evaluation on the project, it was concluded that positive impacts were made on the local environment, such as the reduction of hard labor required for traditional methods and reduction of dust pollution associated with operation of old-model machines. This ex-post evaluation could also confirm these impacts were still evident in the practical fields of pasture seed and forage production.

(2) Sustainability

Organizational aspect: After the termination, there has been no personnel outflow due to transfers and job separations of the counterparts, and the maintenance and stability of the organization that ensures sustainability remain secure.

Policy and institutional aspects: The 10th National Economic and Social Development Plan puts a special emphasis on the agricultural industry. The relative position of pasture seed production in the agricultural industry has recently risen from the viewpoint of securing the quality and quantity of agricultural products.

Technical aspect: The equipment have been kept in good condition under the control and maintenance of AND. Besides, various technical materials including equipment operational manuals were also produced in Thai by the project. As a result, the local farmers have widely used them. This point has also been an important factor in expanding project sustainability. The technical knowledge and skills have also been applied sufficiently for the AND-led Paddy project. This could be regarded as significant sustainability.

Financial aspect: Although AND's annual budget rate for forage breeding development is still less than 0.4% of the total budget of MOAC, AND has received certain budgets over the expenditures of previous years for its forage breeding development activities. These facts can also be evaluated well from the viewpoint of sustainability. However, a future plan to increase the budget trend is still

10. The Seed Club was established in 2003 mainly by seed farmers in northeast Thailand, the country's major seed production area. Since the club's establishment, the seed production crops and prices must be determined through the club's meetings according to the market situation. Then, it has contributed to the independence and sustainability of the farmers. Besides, the Seed Club has promoted pasture seed production and development activities to the farmers, while cooperating with AND.

unannounced. Thus, its prospect should be carefully observed.

2. Contributing Factors

(1) Factors that Contributed to Impact

Seed Club: Technology has been transferred to seed farmers via the Seed Club by AND personnel involved in the project. Besides, the recently established Seed Club has acted as a community body for the farmers in technical terms and the number of seed farmers who participate in the Seed Club has increased. So, the existence of the Seed Club can be defined as one of the significant factors in expanding the project's impact.

Increase in the number of livestock cattle: A return of the mad cow disease in 2003 dealt a serious blow to the beef industry. As a result, Thailand's domestic production of beef decreased approximately 40% from 2003 to 2004. On the other hand, the number of livestock cattle has risen annually. This is because the number of children enjoying dairy products has dramatically increased recently through a milk supply program to pupils at primary schools, and the recent popularization of a western-style dietary life and culture among young people. This increase in livestock cattle has contributed to the expansion of cultivated acreage.

(2) Factors that Contributed to Sustainability

Exporting Thai-made products to the world: "Kitchen of the World" promoted by the Thai government is a national project aimed at promoting the export of Thai food products including livestock products. For the progression of the project, AND has recently been required to secure pasture seeds at an international quality level and control the quality standard for export livestock products. As a result, the technical capacity of seed inspection and quality control transferred from the project has been further utilized.

Material production in the local language: For the effective implementation of pasture seed production activities, technical manuals and guidelines were produced not only in English but also in Thai by the project. As a result, these materials have been widely utilized even at the field level by farmers. This is also a promoting factor of project sustainability in addition to the impact.

3. Inhibiting Factors

(1) Factors that Inhibited Impact

N/A

(2) Factors that Inhibited Sustainability

N/A

4. Conclusion

The technical skills and knowledge transferred from the project have been expanded and widely used not only by the project counterparts but also by the Seed Club. Today, most of the project counterparts participate in the AND-led Paddy project, and the recording system introduced by the project is fully

applied for the production of good quality seeds. The farming equipment provided by the project has been fully utilized. As a result, the efficient and effective production of good quality seeds has been possible, and it has strengthened the realization of the overall goal.

As for project sustainability, technical and organizational aspects were highly evaluated. In terms of the technical aspect, technical references and materials were also arranged in Thai by the project. So, they have widely penetrated grassroots farmer levels. This event has been a factor in further accelerating project sustainability.

As for organizational aspects, there have been no outflows of counterparts since project termination. So AND still maintains seed production activities using techniques and knowledge transferred from the project. Considering these facts, it can be concluded that the impact and sustainability after project termination are generally high.

5. Recommendations

- Technical manuals and guidelines produced by the project and technical training workshops jointly held by AND and the Seed Club have played an important role in securing project sustainability. In order to maintain this sustainability in the future, it is desirable that these contents and programs be revised according to the needs of seed farmers and the seed market whenever necessary.
- The planning of mid- and long-term strategies for pasture seed supply are necessary, while considering variable consumptive demand for livestock products from the viewpoint of sustainable pasture seed production and development activities. It is also desired to secure budgets essential for these activities.
- For the enhancement of pasture seed quality and productivity, AND needs to sustain a strong partnership with the Seed Club.

6. Lessons Learned

- In terms of agricultural projects, the exact evaluation of their technical outputs can take several years. Therefore, it is desirable for agricultural projects to carry out ex-post evaluation after a certain period from their termination.
- At present, the dispatch term of JICA experts is generally two years at most, so they often cannot confirm the outputs by themselves consistently. Therefore, the assignment plan of experts needs to be carefully arranged in order for the experts to confirm the outputs consistently at the field level and/or in order for their successors to surely carry out the follow-up activities.
- The material production in the local language is very useful for technical cooperation projects with the activities of technical transfer and promotion to farmers in the field.

7. Follow-up

N/A